Diabetes Dateline

*National Diabetes Information Clearinghouse*

WINTER 2002–2003

# NIH Studies CVD in People With Diabetes

## Trials Examine Lifestyle Interventions and Surgical Options

National Institute of Diabetes and Digestive and Kidney Diseases

NATIONAL INSTITUTES OF HEALTH

The National Institutes of Health is studying the best strategies to prevent and treat cardiovascular disease (CVD) in people with diabetes in three trials: Look AHEAD, ACCORD, and BARI 2D. These studies are all joint efforts of the National Institute of Diabetes and Digestive and Kidney Diseases and the National Heart, Lung, and Blood Institute.

CVD is the leading cause of diabetes-related deaths. About 65 percent of those with diabetes die from heart disease or stroke, a rate about 2 to 4 times higher than in adults without diabetes. The increased risk can be attributed in large part to the high rate of concomitant CVD risk factors such as hypertension, dyslipidemia, and obesity in people with diabetes. However, diabetes is an independent risk factor. When people with diabetes and other risk factors are compared with people who have the same risk factors but not diabetes, people with diabetes still have higher rates of death and disability from CVD. Even though death rates from cardiovascular causes have declined for the population as a whole over the past 30 years, the decline has been much smaller in people with diabetes. In fact, the death rate from CVD in adult women with diabetes has increased over that period.

## Inside This Issue...



### Look AHEAD: Action for Health in Diabetes

We now know that weight loss can dramatically reduce the development of type 2 diabetes in those at high risk, but we don't know whether weight loss can prevent complications in people with diabetes, or even if it is beneficial over the long term. Because support from health care providers for achievement of weight loss is costly, it is important to establish the benefits and the cost-effectiveness of weight loss in people with type 2 diabetes. To address this issue, the NIH is conducting the largest clinical trial to date to examine the long-term health effects of voluntary weight loss. This multi-center, randomized clinical

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U.S. Department of Health and Human Services

# Drug May Delay Decline in Insulin Production in Newly Diagnosed Type 1 Diabetes

Results of a study published in the May 30, 2002, issue of the *New England Journal of Medicine* suggest that an experimental drug with selective immunosuppressive effects may delay the typical decline in insulin production in people with newly diagnosed type 1 diabetes. The study, supported by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), the National Institute of Allergy and Infectious Diseases (NIAID), the National Center for Research Resources (NCRR), and the Juvenile Diabetes Research Foundation (JDRF), tested the effects of the modified form of the anti-CD3 antibody (anti-CD3 mAb) on 12 patients newly diagnosed with type 1 diabetes. A control group of 12 people did not receive the drug. Fourteen days of drug treatment resulted in a delay in the progressive decline in insulin production common with type 1 diabetes. One year later, insulin production in the treatment group was higher, the amount of external insulin needed was lower, and A1C results were better than in the control group. Researchers believe that anti-CD3 mAb works by suppressing T cells and stimulating the production of protective immune-signaling molecules. A larger trial of the anti-CD3 antibody is in progress.

The Immune Tolerance Network (ITN) in partnership with Type 1 Diabetes TrialNet will conduct future trials of anti-CD3 mAb. The ITN, an international consortium of more than 70 scientists and clinical investigators, was initially funded in 1999 and funding is extended at least through 2005. Type 1 Diabetes TrialNet is a network of clinical sites for collaborative research with ITN. With funding from the NIAID, NIDDK, and JDRF, ITN researchers are also evaluating promising treatments for modulating the immune system, with applications for islet and kidney transplantation, autoimmune diseases, asthma, and allergies. ■

# What + When + How Much = Eating and Diabetes

**New Booklet Compiles the Meal Planning Series of Three**

The National Diabetes Information Clearinghouse has published updated information about meal planning for people with diabetes. Written at a 6th-grade reading level, the new booklet, *What I Need to Know About Eating Diabetes*, is a compilation of the three-booklet meal planning series *I Have Diabetes: What Should I Eat?, I Have Diabetes: How Much Should I Eat?*, and *I Have Diabetes: When Should I Eat?*


Content includes

- the food pyramid and a description of each of the food groups
- guidelines on choosing serving sizes
- general suggestions on the number of servings and foods to meet three different calorie levels
- suggested blood glucose targets
- general guidelines on managing blood glucose levels
- "need-to-know" information on exercise
- treatment guidelines on hypoglycemia and for sick days

Interactive sections provide opportunities for people to personalize the booklet with information about their own blood glucose targets; meal times; medication names, dosages, and schedules; recommended number of servings for each group in the pyramid; sample menus; and serving sizes.

The booklet is available online at *www.niddk.nih.gov/health/diabetes/pubs/eating/nutri.htm*, or use the form on page 11 to order printed copies. A Spanish version will be available in early 2003. ■

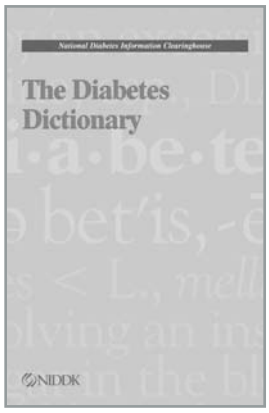
## Oral Insulin Nears Conclusion

A clinical trial currently under way will determine whether oral insulin can prevent the development of type 1 diabetes, particularly in those who have evidence of autoimmunity but not the disease. Oral insulin does not affect blood glucose but instead may affect the action of the immune cells that attack pancreatic beta cells. Participants are currently undergoing final evaluations, and results of the trial will be presented at the American Diabetes Association's 63rd Scientific Sessions in June. The oral insulin trial, funded by the National Institute of Diabetes and Digestive and Kidney Diseases, the National Institute of Allergy and Infectious Diseases, the National Institute of Child Health and Human Development, and the Juvenile Diabetes Research Foundation, is being conducted by the Type 1 Diabetes TrialNet, a collaborative network of researchers, clinical centers, and laboratories dedicated to testing new approaches to understanding, preventing, and treating type 1 diabetes. In addition to completing the ongoing Diabetes Prevention Trial for Type 1 (DPT–1), TrialNet clinical centers are planning additional studies. For more information, call 1–800–HALT–DM1 (1–800–425–8361) or see *www.niddk.nih.gov/patient/dpt_1/dpt_1.htm* on the Internet.

The National Institutes of Health maintains a database of information on more than 4,000 Federal and private medical studies involving patients and others at more than 47,000 locations across the United States. The database is available at *http://ClinicalTrials.gov.* ■

## NDIC Publishes Updated *Diabetes Dictionary*

We've updated *The Diabetes Dictionary*. This 44-page booklet includes more than 300 diabetes-related medical terms and is appropriate for people with diabetes, their families, friends, and caregivers. The dictionary can also serve as a quick reference for health professionals who need to explain medical concepts in simpler terms. *The Diabetes Dictionary* can benefit people who have been recently diagnosed with diabetes as well as those who have had it for years.




To receive a complimentary copy of the booklet or to order bulk quantities, use the order form on page 11. The booklet is also available online at *www.niddk.nih.gov/health/diabetes/pubs/dmdict/dmdict.htm.* A Spanish version will be available in early 2003. These patient education materials are a public service and are not copyrighted. Make as many copies as you wish. ■

## Booklet *Active at Any Size* Explains How Very Large People Can Exercise

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), through its Weight-control Information Network (WIN), has introduced a publication on physical activity regardless of body size. *Active at Any Size* reviews the importance of activity for large people, ways to get started, and suggestions for various types of activities. It also provides safety tips and lists additional resources. The publication is designed to help overweight people become physically fit and prevent complications from being overweight, such as diabetes, heart disease and stroke, high blood pressure, osteoporosis, and osteoarthritis.

The publication is available online at *www.niddk.nih.gov/health/nutrit/activeatanysize/active.html* or may be ordered by calling 1–877–946–4627. NIDDK's patient education materials are a public service and are not copyrighted. You are encouraged to make as many copies as you wish. ■

## HHS Warns the Public About Pre-diabetes Risk

Last spring, the U.S. Department of Health and Human Services (HHS), along with a panel of experts from the National Institute of Diabetes and Digestive and Kidney Diseases, the Centers for Disease Control and Prevention, and the American Diabetes Association, provided new testing recommendations for pre-diabetes, also called impaired glucose tolerance or impaired fasting glucose. In people with this condition, blood glucose levels are higher than normal but not high enough to be diagnosed as diabetes. Pre-diabetes affects nearly 16 million Americans and increases their risk of type 2 diabetes in addition to boosting their risk of heart disease.

HHS and panel members recommend that physicians routinely test their patients who are overweight and older than 45 for pre-diabetes. However, overweight patients who are younger than 45 and have one or more risk factors should also be considered for testing. Risk factors include a family history of diabetes, low high-density lipoprotein (HDL) cholesterol, high triglycerides, high blood pressure, a history of gestational diabetes, or a high-risk racial or ethnic background (African American, American Indian, Asian American, Pacific Islander, or Hispanic American/Latino).

The good news is that people who have pre-diabetes can decrease their chances of developing diabetes and heart disease with lifestyle changes. Physicians and health educators should encourage at-risk patients to lose weight, increase physical activity, and eat a healthy diet. Modest weight loss of 10 or 15 pounds can dramatically reduce the risk of diabetes. Specifically, people should aim for 30 minutes of aerobic exercise, such as brisk walking, 5 to 7 days a week, and reduce the fat and calories in their diet. Medications to prevent pre-diabetes were not recommended as an initial treatment, but some people may benefit from them. The panel's recommendations, published in the April 2002 issue of *Diabetes Care* (25(4):742–749), are based on major studies of ways to prevent type 2 diabetes.

Considering the rates of disability and death in the 17 million Americans with diabetes, preventing future cases is of the utmost importance. The National Diabetes Information Clearinghouse offers a booklet titled *Am I at Risk for Type 2 Diabetes?* that describes the steps people can take to lower their risk. It also includes a checklist of risk factors and recommendations for testing. The publication is available at *www.niddk.nih.gov/health/diabetes/pubs/risk/risk.htm*, or use the order form on page 11 to order printed copies. ■

## NIDDK Information Clearinghouses Now Accept Credit Cards

Many customers of the National Diabetes Information Clearinghouse have asked to use their credit cards to pay for bulk orders of materials. In response, the clearinghouse now accepts MasterCard and Visa. Single copies of most clearinghouse materials are free, and Government publications are not copyrighted, so people can make multiple copies for distribution if they wish. For customers ordering large quantities of materials, however, this new service will expedite the process. The clearinghouse continues to accept payment by check, money order, or purchase order. For ordering information, please see page 11 of this newsletter. ■

## Results of Diabetes–Heart Disease Link Survey Released

A poll of more than 2,000 people with diabetes has shown that 68 percent of them did not know about their risk for cardiovascular disease (CVD), the leading cause of death in people with diabetes. The survey, commissioned by the American Diabetes Association, found that people knew little about ways to reduce their risk of CVD. Other results released at a Department of Health and Human Services press conference on February 19, 2002, showed that among older adults and Hispanics, awareness was even lower: 75 percent did not know their risk.

Although many people with diabetes know the importance of blood glucose control, survey results showed that more than half were unaware that blood pressure and blood cholesterol control are equally important. The *Be Smart About Your Heart: Control the ABCs of Diabetes* campaign of the National Diabetes Education Program (NDEP), in partnership with the American Diabetes Association, addresses this lack of awareness by stressing that people with diabetes need to control blood glucose, blood pressure, and cholesterol levels to decrease their risk of CVD. In the campaign materials,

- **A** stands for the A1C test, the average blood glucose over the previous 3 months
- **B** is for blood pressure
- **C** is for cholesterol

Suggested targets for people with diabetes are

- A1C below 7
- Blood pressure below 130/80
- Cholesterol (LDL) below 100

To obtain materials, visit NDEP's website at *http://ndep.nih.gov* or call 1–800–438–5383 to order printed materials.

The American Diabetes Association and the American College of Cardiology are sponsoring a campaign called *Make the Link!* to increase public awareness of the link between CVD and diabetes. Other campaign goals include keeping health care providers up-to-date on the diagnosis and treatment of CVD and providing patients with information on their risk and treatment options for CVD. Information is available at *www.diabetes.org/makethelink*. ■

## Revised Fact Sheet on Diabetic Neuropathies

The National Diabetes Information Clearinghouse (NDIC) has published a comprehensive 12-page reference on diabetic neuropathies for people with diabetes. *Diabetic Neuropathies: The Nerve Damage of Diabetes* provides practical information about the symptoms, diagnosis, and interventions for various types of neuropathies, which in one form or another affect about half of those with diabetes.

Some patients are already aware of the most common form of the disorder, peripheral neuropathy, and its threat to the lower extremities. But the varied and often subtle ways that diabetic nerve damage can also target other body systems are less well known to most people.


Diabetic Neuropathies:
The Nerve Damage of Diabetes

Heightened awareness of the mild symptoms that may signal nerve damage may lead to earlier diagnosis and intervention, resulting ultimately in an improvement in the quality of life. This publication describes, system by system, those symptoms that may have a neurological basis. It also reviews the essentials of daily foot care.

The fact sheet is available online at *www.niddk.nih.gov/health/diabetes/pubs/neuro.htm*, or use the form on page 11 to order printed copies. ■

# New Fact Sheet on Hypertension and Kidney Disease

Hypertension is common in people with diabetes. Although the definition of hypertension for the general population is above 140/90, the goal for people with diabetes is below 130/80. Nearly three-fourths of adults with diabetes have blood pressure greater than or equal to 130/80 mm Hg or use prescription medications for hypertension. In addition, diabetes is the leading cause of treated end-stage renal disease, accounting for almost half of new cases. Therefore, all people with diabetes can potentially benefit from increased awareness of the relationship between high blood pressure and kidney disease.


High Blood Pressure and Kidney Disease

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) has released a new publication in both English and Spanish versions. *High Blood Pressure and Kidney Disease* outlines the relationship between hypertension and kidney disease by defining high blood pressure, reviewing symptoms and diagnostic criteria, and offering suggestions on preventing or delaying kidney damage. A section on the role of ACE (angiotensin converting enzyme) inhibitors in treating blood pressure and preventing or delaying kidney damage is included.

Single copies of this fact sheet are available free of charge. To order, call the National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC) at 1–800–891–5390. This publication is also available online. Go to *www.niddk.nih.gov* and click on kidney. NIDDK's health information materials are a public service and are not copyrighted. Health care professionals are encouraged to duplicate them as handouts for their patients or as an insert for office or association newsletters. ■

**NIH Studies CVD,** *continued from page 1*

trial will examine the consequences of a lifestyle intervention designed to achieve and maintain weight loss over the long term through decreased caloric intake and increased exercise. Look AHEAD will focus on the disease most associated with overweight and obesity, type 2 diabetes, and on the outcome that causes the greatest morbidity and mortality, cardiovascular disease.

In June 2001, 16 Look AHEAD Clinical Centers and a Data Coordinating Center began the 2½-year process of enrolling 5,000 obese patients with type 2 diabetes. Trial participants, who will be followed for up to 11.5 years, are randomly assigned to one of two protocols, the Lifestyle Intervention, which is designed to help participants achieve and maintain weight loss over the long term, or less intensive Diabetes Support and Education. Look AHEAD will primarily study the impact of these two interventions on major cardiovascular events: heart attack, stroke, and cardiovascular death. The trial also will investigate the effect of the interventions on other cardiovascular disease–related outcomes, cardiovascular risk factors, and all-cause mortality. Additional outcomes include diabetes control and complications, fitness, general health, health-related quality of life, and psychological outcomes. The cost and cost-effectiveness will be assessed for each of the two interventions.

For more information on the Look AHEAD trial or to find a site near you enrolling volunteers, call 1–866–55AHEAD (1–866–552–4323) or visit the website at *www.lookAHEADstudy.org.*

### Action to Control Cardiovascular Risk in Diabetes (ACCORD)

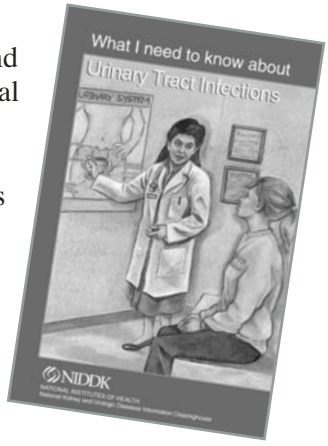
This randomized, multi-center trial is being undertaken by the NIH to study three key approaches to preventing major cardiovascular events in individuals with type 2 diabetes. The risk factors to be targeted in the ACCORD interventions are control of blood glucose, blood pressure, and lipid

**NIH Studies CVD,** *continued on page 12*

# NIDDK Publishes Easy-to-Read Booklet on Urinary Tract Infections in Adults

A new NIDDK booklet titled *What I Need to Know About Urinary Tract Infections* provides information for people at risk for urinary tract infections (UTIs). Just as diabetes can cause complications such as heart disease and stroke, it also increases the risk for UTIs. Often, a recurring bladder infection prompts a physician to check a patient's blood glucose level and leads to a diagnosis of diabetes. Possible reasons for increased susceptibility to UTIs are the effects of high blood glucose levels on the immune system, bacterial growth, bladder dysfunction, and the increased incidence of *Candida* or yeast infections.

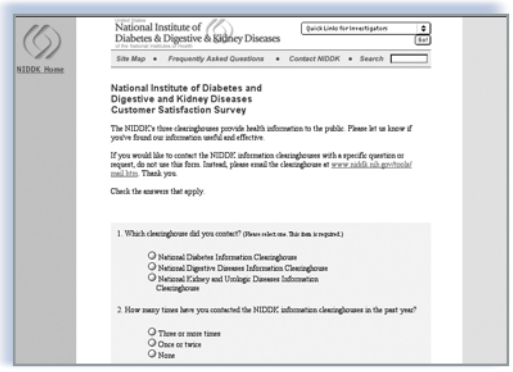
Written in plain language, this new booklet covers the causes, symptoms, and treatments for UTIs. The booklet also informs people about when to see a physician for suspected UTIs, what will happen during a visit to the doctor, and how to prevent recurrences. Illustrations and diagrams help clarify medical concepts. The booklet concludes with a glossary of terms and a list of resources for additional help.




Single copies are available free of charge. To order, call the National Kidney and Urologic Diseases Information Clearinghouse (NKUDIC) at 1–800–891–5390. This publication is also available online at *www.niddk.nih.gov/health/urolog/pubs/uti/uti.htm*. Since NIDDK materials are a public service and are not copyrighted, health care professionals are encouraged to duplicate them as handouts for their patients. ■

# NDIC Seeks Feedback on Clearinghouse Services

You say you like our fact sheets, our easy-to-read booklets, and our responsiveness. However, you'd like to see more materials in alternate forms, such as CDs, videotapes, or cassettes. In addition, you'd like more materials in Spanish. That's what we've learned about your level of satisfaction so far, based on the results of the customer satisfaction survey from the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Information Clearinghouses.




The customer satisfaction survey, launched by the NIDDK in 2001, has helped the National Diabetes Information Clearinghouse (NDIC) identify customers' needs and provide additional services in response to those needs.

But we want to learn more. The survey is available on the NIDDK website, through clearinghouse email responses, and in print format—a survey is included with every publication order. NDIC information specialists also conduct surveys over the telephone and at NDIC exhibits during professional meetings. The results of the survey are entered into a database, where the information is compiled. We look forward to your continued feedback on our services and we will report the results in future issues of *Diabetes Dateline*. ■

## NDEP News New Online Resources on Children With Diabetes Available on the National Diabetes Education Program's Website at *www.ndep.nih.gov*

Diabetes is one of the most common chronic diseases in school-aged children, affecting about 151,000 young people in the United States, or about one in every 400 to 500 people under 20 years of age. Each year, more than 13,000 youths are diagnosed with type 1 diabetes, formerly called juvenile or insulin-dependent diabetes.

In recent years, health care providers have found increasing numbers of children and teens with type 2 diabetes, a disease usually diagnosed in adults over age 40. Although there are no national prevalence data, some clinics report that one-third to one-half of all new cases of diabetes in children are now type 2. American Indian, African American, and Hispanic/Latino young people who are obese and have a family history of type 2 diabetes are at especially high risk for the disease. With 13 percent of U.S. children either overweight or obese—more than double the number two decades ago—type 2 diabetes is emerging as a major public health threat.

Early detection of type 1 or type 2 diabetes in children is as important as it is with adults, given the serious complications associated with the disease, such as cardiovascular disease, nephropathy, neuropathy, and retinopathy. The most common symptoms of type 1 and type 2 diabetes in children include ongoing fatigue, increased thirst, frequent urination, recent weight loss, blurred vision, frequent infections, and slow healing of wounds or sores. However, as with adults, some children with type 2 diabetes may not have symptoms. Health care providers should consider testing children for type 2 diabetes who have additional risk factors. According to the American Diabetes Association Consensus Statement "Type 2 Diabetes in Children and Adolescents" (*Diabetes Care* 23:381–389, 2000), testing is recommended for overweight children who have any two of the following risk factors:

- a family history of type 2 diabetes in first- and second-degree relatives
- being of Hispanic/Latino, African American, American Indian, Asian American, or Pacific Islander descent
- the presence of physical signs of insulin resistance, such as acanthosis nigricans, or having conditions associated with insulin resistance, such as polycystic ovary syndrome

Once diabetes is diagnosed, health care providers need to work with the children and their families to develop an individualized diabetes care plan for managing blood glucose levels within a target range. The care plan should include the child's target blood glucose goals, meal and snack plan, recommended physical activities, blood glucose monitoring, and prescribed medications.

A diagnosis of diabetes is stressful not only for the child, but also for the family. Children face unique physical and psychosocial issues in dealing with diabetes 24 hours a day, 7 days a week, especially in making the lifestyle changes that are required for effective diabetes management. Primary care providers can help the family to identify resources such as mental health counseling, diabetes education classes, financial and social services, and other community resources.

Working with representatives from the leading diabetes, pediatric, primary care, nutrition, and education organizations, the National Diabetes Education Program has developed online web-based resources to inform health care professionals, parents, and schools about the onset and management of diabetes in children.

The following resources are available on the NDEP website, *www.ndep.nih.gov*:

- *Diabetes in Children and Adolescents* fact sheet—an informative guide with basic information on the different types of diabetes, special issues related to children, steps that a family can take for a child with diabetes, and resources.
- *Diabetes in Children and Adolescents–Resource Directory*—this web-based directory provides links to governmental, educational, and voluntary organizations that offer information and resources related to children and adolescents with diabetes.
- *Annotated Bibliography*—this online resource for health care professionals and parents of children with diabetes provides abstracts of articles from the biomedical literature about children and adolescents with diabetes, risk factors, and special high-risk populations.

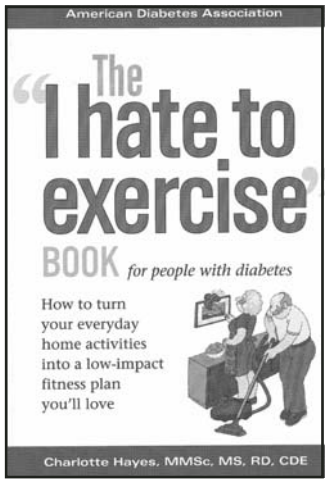
To order materials on diabetes management for your practice, call the National Diabetes Education Program at 1–800–438–5383. ■

## *CHID Online:* What's New?

*CHID Online*, the Combined Health Information Database, contains thousands of summaries of professional resources and patient education materials about diabetes and other diseases. To view descriptions of the many books, pamphlets, journal articles, videos, and manuals in the diabetes subfile, go to *http://chid.nih.gov* on the Internet.

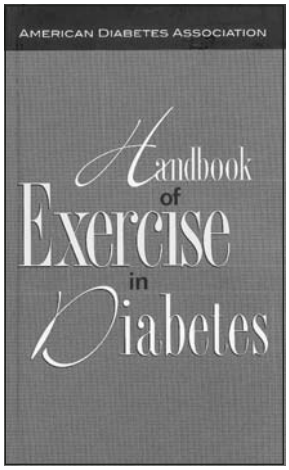
### Spotlighted Additions

The *"I Hate to Exercise" Book for People With Diabetes*. Book (English). Charlotte Hayes, M.M.Sc., M.S., R.D., C.D.E. 2000. American Diabetes Association, Alexandria, Virginia. 123 pages.




"Good for you. Opening the book counts. It burned a few calories. In fact, doing just about any activity burns calories." This upbeat tone continues throughout the book, emphasizing that exercise need not be difficult, expensive, or unpleasant. Charlotte Hayes, a nutrition and fitness consultant, explains how people with diabetes can incorporate exercise into daily activities and reach a goal of 30 minutes of activity per day in small increments. She also addresses safety issues for people with diabetes, including dealing with hypoglycemia and finding safe exercises for those with complications. Fill-in-the-blank forms provide opportunities for setting exercise goals, specifying action plans, choosing rewards, and monitoring activity. One chapter, illustrated with simple line drawings, presents a stretching and strengthening routine that can be done while sitting.

*Handbook of Exercise in Diabetes*. Book (English). Neil Ruderman, M.D., D. Phil., editor-in-chief; John T. Devlin, M.D., and Stephen H. Schneider, M.D., editors; and Andrea Kriska, Ph.D., contributing editor. 2002. American Diabetes Association, Alexandria, Virginia. 699 pages.




This comprehensive guide to diabetes and exercise gives health care providers invaluable background information as well as practical information to help patients implement exercise regimens. Sections include

- an introduction to diabetes and exercise, including a history of exercise physiology
- basic considerations such as fuel metabolism
- the role of exercise in preventing diabetes
- considerations for the treatment plan, such as nutritional recommendations
- exercise for those with complications
- exercise in special patient groups, such as those with gestational diabetes
- practical advice on sports
- reimbursement and managed care

# NDIC Publications List

## Patient Education Fact Sheets

**Single copies free. Packages of 25, $5 each.**

DM–119 Diabetes Overview
DM–116 Diabetic Neuropathies: The Nerve Damage of Diabetes
DM–147 Erectile Dysfunction
DM–213 Financial Help for Diabetes Care
DM–196 Gastroparesis and Diabetes
DM–227 Insulin Resistance
DM–168 Kidney Disease of Diabetes

## Patient Education Booklets (Easy-to-Read)

**Single copies free. Packages of 25, $10 each.**

DM–224 Am I at Risk for Type 2 Diabetes?
DM–84 The Diabetes Dictionary
DM–179 Medicines for People With Diabetes
**Prevent Diabetes Problems:**
DM–203 Keep Your Diabetes Under Control
DM–204 Keep Your Eyes Healthy
DM–205 Keep Your Feet and Skin Healthy
DM–206 Keep Your Heart and Blood Vessels Healthy
DM–207 Keep Your Kidneys Healthy
DM–208 Keep Your Nervous System Healthy
DM–209 Keep Your Teeth and Gums Healthy
DM–226 What I need to know about Eating and Diabetes
DM–214 Your Guide to Diabetes: type 1 and type 2

## Diabetes Library Boxed Set

**First boxed set free. Additional boxed sets, $10 each. See page 5 for details.**

DM–210 Diabetes Library Boxed Set
DM–228 Diabetes Library Boxed Set in Spanish

## Spanish Materials

**Single copies free. Packages of 25, $10 each unless otherwise stated.**

DM–225 Diabetes Motivational Refrigerator Magnet (50¢ each. Packages of 10, $5 each.)
DM–189 Erectile Dysfunction (Packages of 25, $5 each.)
DM–190 I Have Diabetes: How Much Should I Eat?
DM–191 I Have Diabetes: What Should I Eat?
DM–192 I Have Diabetes: When Should I Eat?
DM–229 Kidney Disease of Diabetes (Packages of 25, $5 each.)
DM–193 Medicines for People With Diabetes
**Prevent Diabetes Problems:**
DM–217 Keep Your Diabetes Under Control
DM–218 Keep Your Eyes Healthy
DM–219 Keep Your Feet and Skin Healthy
DM–220 Keep Your Heart and Blood Vessels Healthy
DM–221 Keep Your Kidneys Healthy
DM–222 Keep Your Nervous System Healthy
DM–223 Keep Your Teeth and Gums Healthy
DM–230 Your Guide to Diabetes: type 1 and type 2

## Statistics

**Unless otherwise stated, single printed copies free to those without Internet access.**

DM–113 Diabetes in African Americans
DM–96 Diabetes in America, 2nd edition (Book, $20)
DM–96CD Diabetes in America, 2nd edition (CD–ROM, $5)
DM–215 Diabetes in American Indians and Alaska Natives
DM–216 Diabetes in Asian and Pacific Islander Americans
DM–114 Diabetes in Hispanic Americans
DM–163 Diabetes Statistics

## Research-Focused Materials

DM–162 Diabetes Control and Complications Trial (DCCT) (Single copies free. Packages of 25, $5 each.)
DMI-11 Diabetes Research and Training Centers Demonstration and Education Divisions (Single printed copies free to those without Internet access.)
DM–170 The Pima Indians: Pathfinders for Health (Single copies free. Packages of 25, $10 each.)

## Information Packets

**Single copies free. No bulk orders.**

DM–158 Alcohol and Diabetes
DM–143 Alternative Ways To Take Insulin
DM–172 Complementary and Alternative Therapies for Diabetes Treatment
DM–140 Employment, Discrimination, and Diabetes
DM–150 Exercise and Diabetes
DM–154 The Glycemic Index and Diabetes
DM–211 Hypoglycemia
DM–161 Parenting Children With Diabetes
DM–160 Self-Monitoring of Blood Glucose
DM–149 Travel and Diabetes

## Online Publications

**Single printed copies free to those without Internet access.**

DMI–01 Alternative Therapies for Diabetes
DMI–02 Devices for Taking Insulin
DMI–03 Diabetes Diagnosis
DMI–05 Noninvasive Blood Glucose Monitors
DMI–06 Pancreatic Islet Transplantation

## Other Materials

**Single copies free unless otherwise stated.**

DM–105 Diabetes Dateline
DM–188 Diabetes Motivational Refrigerator Magnet (50¢ each. Packages of 10, $5 each.)
DM–128 Directory of Diabetes Organizations
DM–32 National Diabetes Information Clearinghouse brochure

## Order Forms

**Single copies free.**

DMR–100 Reprints Order Form: Journal Articles About the Diabetes Control and Complications Trial (DCCT) and Other NIDDK Research Programs
DMS–100 Searches-on-File: Topics in Diabetes

# NDIC

## National Diabetes Information Clearinghouse Order Form

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| DM–84 | The Diabetes Dictionary | | 4 | $10.00 | $40.00 |
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**NIH Studies CVD,** *continued from page 6*

levels. Despite the two- to four-fold elevation of cardiovascular disease in the American population with type 2 diabetes, there is a lack of definitive data on the effects of intensive control of blood glucose on cardiovascular disease event rates in diabetic patients. ACCORD is designed to compare current practice guidelines with more intensive glycemic control in 10,000 individuals with type 2 diabetes, including those at especially high risk for cardiovascular disease events because of age, evidence of subclinical atherosclerosis, or existing clinical cardiovascular disease. More intensive control of blood pressure than is called for in current guidelines and a medication to reduce triglyceride levels and raise HDL (good) cholesterol levels will also be studied in subgroups of these 10,000 volunteers. Each treatment strategy will be accompanied by standard advice regarding lifestyle, including diet, physical activity, and smoking cessation, appropriate for diabetic individuals.

The primary outcome that ACCORD will measure is the first occurrence of a major cardiovascular disease event, specifically heart attack, stroke, or cardiovascular death. In addition, the study will investigate the impact of the treatment strategies on other cardiovascular outcomes; total mortality; limb amputation; eye, kidney, or nerve disease; health-related quality of life; and cost-effectiveness. Volunteers will be treated and followed for 4 to 8 years at approximately 70 clinical sites associated with seven clinical center networks in the United States and Canada.

For more information on the ACCORD trial, visit the website at *www.accordtrial.org.*

## Bypass Angioplasty Revascularization Investigation in Type 2 Diabetics Trial (BARI 2D)

This 5-year, multi-center clinical trial compares medical versus early surgical management of patients with type 2 diabetes who also have coronary artery disease and stable angina or ischemia. At the same time, BARI 2D is studying the effect of two different strategies to control blood glucose—providing insulin versus increasing the sensitivity of the body to insulin—on risk of cardiovascular mortality and morbidity.

A total of 2,800 patients, both men and women, are being entered into BARI 2D at 40 clinical centers. Upon enrollment, study volunteers are randomized to receive medical therapy or either angioplasty or bypass surgery and, simultaneously, are randomly assigned to an insulin-providing or insulin-sensitizing strategy of blood glucose control.

Patients in both groups will be followed for 5 years with state-of-the-art management of risk factors, including hyperlipidemia, hypertension, and lifestyle. In addition, hyperglycemia will be aggressively treated to a hemoglobin A1C goal of 7 percent, as recommended by the American Diabetes Association. The primary trial outcome to be measured is total mortality. Secondary outcomes will also be examined, such as cardiac mortality, heart attack, angina, and quality of life.

For more information on the BARI 2D trial, visit the website at *www.bari2d.org* or call the nearest research site (listed on the website). ■

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